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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,762	04/07/2000	Shannon Mary Nelson	NORTH-390A/A-2241	9968

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Terry J Anderson Esq
Northrop Grumman Corporation
1840 Century Park East
Los Angeles, CA 92677-2199

EXAMINER

SEDIGHIAN, REZA

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 11/27/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/544,762

Applicant(s)

NELSON ET AL.

Examiner

Mohammad R Sedighian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 13, it recites the limitation "said first and second circuit cards" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-6, 8-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (US Patent No: 5,949,565) in view of Cern (US Patent No: 5,815,298).

Regarding claims 1 and 8, Ishida discloses a shock-resistant system (col. 4, lines 10-30, 54-67, col. 5, lines 1-27) for interconnecting modules (47, 48, fig. 3) within a computer system (1, 2, 3, fig. 3) to enable data to be transmitted and received therebetween (col. 2, lines 1-3, col. 5, lines 55-67), comprising: a first module having an LED (47, fig. 3), and a second module having a photodiode (48, fig. 3), wherein the first and second modules are maintained in fixed relationship to one another (col. 6, lines 38-46). Ishida differs from the claimed invention in that Ishida does not specifically disclose the first module having a first LED and a first photodiode, and the second module having a second LED and a second photodiode. Cern discloses an optical

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communication system (col. 3, lines 60-67, col. 4, lines 1-20 and fig. 1) comprised of stations (A, B, fig. 1) that each includes optical transceiver modules (10, fig. 1) such that a first photodiode (12, station A) on the first module (10, station A) is operative to receive a signal produced from a second LED (14, station B) of the second module (10, station B), and a second photodiode (12, station B) is operative to receive signals from a first LED (14, station A) of the first module (10, station A). Therefore, it would have been obvious to an artisan at the time of invention to incorporate optical transceiver modules such as the one of Cern for the optical transmission and optical reception modules in the electronic apparatus of Ishida in order to provide a bi-directional optical transmission of data between a first unit and a second unit within a computer system.

Regarding claims 2 and 9, Cern further discloses optically transmitted infrared radiation (col. 1, lines 40-60).

Regarding claims 3 and 10, Ishida further discloses the transmission and reception signals comprise a standardized infrared communication scheme protocol (col. 6, lines 47-50).

Regarding claims 5 and 12, Ishida further discloses first and second modules (47, 49, fig. 3) are housed within an enclosure (col. 3, lines 65-67, col. 4, lines 1-2, 31-39 and 2, 3, fig. 3).

Regarding claims 6 and 13, Ishida discloses the first and second modules are operative to run an embedded application (col. 2, lines 64-67, col. 3, lines 1-5, col. 9, lines 13-22).

5. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (US Patent No: 5,949,565) in view of Cern (US Patent No: 5,815,298) and in further view of Croft et al. (US Patent No: 5,864,708).

Regarding claims 4 and 11, the combination of Ishida and Cern further differs from the claimed invention in that Ishida and Cern do not specifically disclose the infrared communication protocol is developed by the infrared data association. Croft discloses wireless transceivers (63, 64, fig. 1) that communicate with each other by using Infrared Data Association standards (col. 3, lines 5-14). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate Infrared Data Association standards or protocols such as the one discussed by Croft for the infrared data transmission and reception in the modified optical communication systems of Ishida and Cern in order to provide a reliable method of data transmission by implementing a standard Infrared protocol to detect transmission errors and to avoid collisions.

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (US Patent No: 5,949,565) in view of Cern (US Patent No: 5,815,298) and in further view of Kobayashi (US Patent No: 5,986,785), or Karstensen et al. (US Patent No: 5,923,451).

Regarding claims 7 and 14, the combination of Ishida and Cern further differs from the claimed invention in that Ishida and Cern do not specifically disclose the system comprises a multiplicity of modules each having an LED and a photodiode formed thereon and the modules being operative to transmit and receive data via LEDs and photodiodes. Kobayashi discloses an electronic apparatus to send and receive data (col. 2, lines 35-38), wherein a plurality of transceiver modules (24, 25, fig. 3) are interfaced to one another (col. 3, lines 27-32 and fig. 3). Karstensen discloses an electronic apparatus with optical communication capability (col. 1, lines 5-10), wherein a plurality of transceiver modules are interfaced to one another (2, fig. 1 and 4, 5

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fig. 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate optical transceiver modules that are interfaced to one another such as the one of Kobayashi or Karstensen in the modified communication system of Ishida and Cern in order to provide an optical transmission system in which multiple requests can be retained, stored or resent and digital information can be routed, processed, and transmitted optically between multiple points.


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al. (US patent No : 6,256,129) is cited to show to a portable computer (10, figs. 1, 2) using an infrared transceiver unit (11, fig. 2) in communication with a peripheral device (30, fig. 2) having the same infrared transceiver unit (32, fig. 2).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad R Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600